

comprising:

a matrix polymer comprising a polypropylene component having a pentad isotactic index of at least 95%, and having a melt flow rate of 100 to 300g/10 min, measured according to JIS K7210 at a temperature of 230°C and a load of 21.18N;

a long glass fiber filler in a content of 30 to 50 mass percent with respect to a total mass;
and

an affinity providing component for providing affinity between the matrix polymer and the long glass fiber filler,

wherein at least the matrix polymer and the long glass fiber filler form a composite.

11. (Amended) The long glass fiber filler reinforced resin material for molding of claim 10, wherein a melt flow rate of the matrix polymer of the masterbatch is 100 to 300g/10min measured according to JIS K7210 at a temperature of 230°C and a load of 21.18N.

REMARKS

Filed concurrently herewith is a Request for Three Month Extension of Time which extends the shortened statutory period for response to November 24, 2002. Accordingly, Applicant respectfully submits this response is being timely filed under the next business day rule.

The Official Action dated May 24, 2002, has been received and its contents carefully

noted. In view thereof, claims 1 and 11 have been amended in order to better define that which Applicant regards as the invention. As previously, claims 1-23 are presently pending in the instant applications with claims 8 and 9 and 13-23 being withdrawn from further consideration by the Examiner as being directed to a non-elected invention.

With reference now in the Official Action, particularly paragraph 1 and 2 of the Official Action, Applicant hereby confirms the election of Group I directed to a long glass fiber filler for resin material set forth in claims 1-7 and 10-12. Applicant further acknowledges the indication that claims 8, 9 and 13-23 have been withdrawn from further consideration by the Examiner as being drawn to a non-elected invention.

With reference to paragraph 4 of the Office Action, claims 1-7 and 11 have been rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention. Particularly, the Examiner notes in claims 1 and 11 that each recite a particular measuring standard in parenthesis. As was suggested by the Examiner, this standard as well as the parameters set forth therein have been positively recited in each of claims 1 and 11. Accordingly, it is respectfully submitted that claims 1-7 and 11 are now in proper formal condition for allowance.

Referring now to paragraph 7 of the Office Action, claims 1-7 and 10-12 have been rejected under 35 USC 103(a) as being unpatentable over U.S. Patent No. 5,514,745 issued to Yoshino in view of U.S. Patent No. 5,409,991 issued to Mitsuno et al. This rejection is

respectfully traversed in that the combination proposed by the Examiner neither discloses nor remotely suggest that which is presently set forth by Applicant's claimed invention.

As the basis for discussion of each of the several rejections set forth by the Examiner in section 7-11 of the Office Action, Applicant provides the following discussion of the present invention.

As can be appreciated by the Examiner, the object of the present invention is not only the use of a polymer comprising a polymer polypropylene component having a pentad isotactic index and a low viscosity has a matrix polymer, but also the particular value range set forth therein is significant.

Specifically, as is set forth in the present invention and particularly independent claim 1, the value range of the pentad isotactic index in the polypropylene component and a MFR of the matrix polymer is defined so as to produce an unconventional injection molded article in which a bending modulus thereof is at least 5 GPas and the Izoq impact value thereof is at least 25 KJ/m². It is respectfully submitted that the combination proposed by the Examiner, that being the teachings of Yoshino as modified by Mitsuno et al. clearly fails to disclose or suggest such features. Although the patent to Yonshino may disclose long glass fiber filler reinforcement resin material injection molding and the patent to Mitsuno et al. is drawn to a thermoplastic polypropylene resin composition comprising glass fiber wherein the propylene homopolymer and propylene component each possess a pentad isotactic index of 97% or greater, the combination proposed by the Examiner clearly fails to achieve that which is presently set forth

by Applicant's claimed invention as recited in claims 1-7.

With respect to independent claim 10, this claim recites a master batch comprising a matrix polymer comprising a propylene component having a pentad isotactic index of at least 95% a long glass fiber filler the content of 30-50 mass percent with respect to the total mass and an affinity providing component for providing affinity between the matrix polymer and the long glass fiber filler where at least the matrix polymer and the long glass fiber filler form a composite and a diluted polymer comprising a polypropylene component having a pentad isotactic index of at least 95% wherein the melt flow rate of the matrix polymer of the master batch is larger than twice the melt flow rate of the diluted polymer. Particularly, each pentad isotactic index in the polypropylene content of the master batch and that of a diluted polymer, and an MFR ratio therebetween undefined so as to produce an injection molded article which has a bending module thereof of at least 5 GPas and the Izoq impact values thereof are at least 25 KJ/m². Clearly, the prior art combination proposed by the Examiner fails to disclose or remotely suggests such features. Accordingly, this is respectfully submitted that independent claim 10 as well as dependent claims 11 and 12, likewise distinguished over the combination proposed by the Examiner and are in proper for condition for allowance.

Referring now to paragraph 8 of the Office Action, claims 1, 3-7 and 10-12 have been rejected under 35 USC 103(a) as being unpatentable over U.S. Patent No. 5,484,835 issued to Sobajima et al. in view of Mitsuno et al. and Yoshino. This rejection is likewise respectfully traverse in that the patent to Sobajima et al. does not overcome the aforementioned shortcomings set forth by Mitsuno et al. and Yoshino and likewise fails to disclose or remotely suggests that

which is presently set forth by Applicant's claimed invention.

While the patent to Sobajima et al. may disclose a long glass fiber filler reinforced resin material for injection molding which comprises 0.06-77% long glass fibers, this reference clearly fails to disclose or remotely suggests that which is presently set forth by Applicant's claimed invention and discussed in detail hereinabove. Accordingly, it is respectfully submitted that Applicant's claimed invention as set forth in claims 1, 3-7 and 10-12 distinguishes over the combination proposed by the Examiner and are in proper condition for allowance.

With reference now to paragraph 9 of the Office Action, claims 1, 5-7, 10-12 are being rejected under 35 USC 103(a) as being unpatentable over U.S. Patent No. 5,792,527 issued to Yoshimitsu et al. in view of Mitsuno et al. and Yoshino. Again this rejection is likewise respectfully traversed that the patent to Yoshimitsu et al. does nothing to overcome the aforementioned shortcomings associated with the teachings of Mitsuno et al. and Yoshino.

As noted hereinabove, the claimed invention as recited in claim 1 sets forth a long glass fiber filler reinforced resin wherein the value range of the pentad isotactic index in the polypropylene component and a MFR of the matrix polymer is defined so as to produce an unconventional high performance injection molded article. Clearly, for the reasons discussed hereinabove in detail, it is respectfully submitted that Applicant's claimed invention that is set forth in each independent claims 1 and 10, as well those claims which depend therefrom clearly distinguish over the combination proposed by the Examiner in that no motivation for leading each pentad isotactic index in the polypropylene component of the master batch and that of the

diluted polymer and the ratio therebetween.

With reference now to paragraph 10 of the Office Action, claims 3 and 4 rejected under 35 USC 103(a) as being unpatentable over Yoshimitsu et al. in view of Mitsuno et al. and Yoshino and applied to claims 1, 5-7 and 10-12 above in further view of Sobajima et al. Again this rejection is respectfully traversed in that the combination proposed by the Examiner clearly fails to disclose or remotely suggest that which is presently set forth by Applicant's claimed invention.

In that each of claims 3 and 4 are dependent upon independent claim 1 and include all the limitations, it is respectfully submitted that these claims are likewise in condition for allowance for the reasons discussed hereinabove. Additionally, the patent to Sobajima et al. fails to overcome the aforementioned shortcomings associated with the combination of Yoshimitsu et al. in view of Mitsuno et al. and Yoshino.

Referring now to paragraph 11 of the Office Action, claims 1-7 are being rejected under 335 USC 103(a) as being unpatentable over WO/98/16359 in view of Mitsuno et al., Sobajima et al. and Yoshino. Again, this rejection is respectfully traversed in that the combination proposed by the Examiner clearly fails to render obvious that which is presently set forth by Applicant's claimed invention.

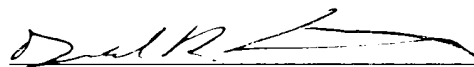
While the WO 98/16359 reference may disclose glass fiber filler reinforced resin material, as appreciated by the Examiner, this reference clearly fails to disclose or remotely suggest a requirement in the claims of pentad isotactic index of polypropylene, the length of a

glass fiber, treating glass fiber with a coupling agent and ethylene-propylene block copolymer. While the Examiner is relying on various teachings from the secondary references, it is clear that such combination fails to render Applicant's claimed invention obvious. As noted hereinabove, there can be found no motivation leading to particular combinations set forth by Applicant's claimed invention. Particularly, no motivation is provided to lead one of ordinary skill in the art to the value range of the pentad isotactic index and the MFR ratio as set forth in Applicant's claimed invention.

Therefore, in view of the foregoing, it is respectfully requested that the objections and rejections of record be reconsidered and withdrawn by the Examiner, that claims 1-7 and 10-12 be allowed and the application be passed to issue.

Should the Examiner favor a conference that would be a benefit in expediting the prosecution of the instant application, it is hereby invited to telephone counsel to arrange such a conference.

Respectfully submitted,



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MARKED UP VERSION

1. (Amended) A long glass fiber filler reinforced resin material for molding comprising:

a matrix polymer comprising a polypropylene component having a pentad isotactic index of at least 95%, and having a melt flow rate of 100 to 300g/10 min, [(] measured according to JIS K7210[,] at a temperature of 230°C [;] and a load of 21.18N [)] of 100 to 300g/10 min];

a long glass fiber filler in a content of 30 to 50 mass percent with respect to a total mass;
and

an affinity providing component for providing affinity between the matrix polymer and the long glass fiber filler,

wherein at least the matrix polymer and the long glass fiber filler form a composite.

11. (Amended) The long glass fiber filler reinforced resin material for molding of claim 10, wherein a melt flow rate [(measured according to JIS K7210, a temperature of 230°C ; and a load of 21.18N)] of the matrix polymer of the masterbatch is 100 to 300g/10min measured according to JIS K7210 at a temperature of 230°C and a load of 21.18N.